

Notice of Allowability

Application No.

10/037,655

Examiner

Chih-Ching Chow

Applicant(s)

LI ET AL.

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/18/06.
2. ☒ The allowed claim(s) is/are 1-7, 9-17, 19-27 and 29-60.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 3/29/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 11/27/06
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Examiner's Amendment and Statement of Reasons for Allowance

1. This action is responsive to amendment dated September 18, 2006.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. James Henry, Registration Number 41,064, on November 27, 2006 for obviating any potential 101 issues and put the claims in condition for allowance.

The application has been amended as follows:

Claim 10 line 1: (currently amended) The method of claim 8 1 wherein emitting the block inconsistency check code comprises:

Claim 11 lines 1-4: (currently amended) An article of manufacture to translate a block of code from a source architecture that supports multiple-format registers to a target architecture that does not, the article of manufacture comprising ~~one of a processor-readable medium and a computer data signal~~, including thereon sequences of instructions that, when executed, cause a computer processor to:

Claim 41 lines 1-4: (currently amended): An article of manufacture to translate a block of code from a source architecture that supports multiple-format registers to a target architecture that does not, the article of manufacture comprising ~~one of a processor-readable medium and a computer data signal~~, including thereon sequences of instructions that, when executed, cause a computer processor to:

-- End --

Examiner's Statement of Reason(s) for Allowance

3. Claims 1-7, 9-17, 19-27, 29-60 are allowed.

4. The following is an examiner's statement of reasons for allowance:

The prior arts of record: **Abdallah**, teaches a method and apparatus to convert data from one format to another wherein the data in the original format is in one architectural register and the data in the converted format is placed in another architectural register. **Yates** teaches a method, system and a program for a computer with an instruction processor designed to execute instructions of first and second instruction sets using flags and table entries to keep track of the execution of the instruction. **Pechanek et al.**, US2002/0073299A1, discloses a hierarchical instruction set architecture (ISA) provides pluggable instruction set capability and support of array processors. **Rosner et al.**, US2003/0126587A1, discloses a method includes receiving a binary of a program code. The binary is based on a first instruction set architecture. The method also includes translating the binary, wherein the translated binary is based on a combination of the first instruction set architecture and a second instruction set architecture. However, none of them, taken alone or in combination, teaches at least the limitations of a method of determining a register format of a source register operated on by a source instruction in a source block of code, the register format including an input instruction format and an output block format of the source block of code, the source block of code running in a source architecture, the source register having multiple formats and being used as an input of the source instruction, the input instruction format containing format of the source register expected by the source instruction, the output block format containing format of the source register after the source block of code is executed; detecting an instruction format inconsistency between the source register and a target register of a target architecture during a translation phase of a binary translation that translates the source block of code into a target block of code running in the target

Art Unit: 2191

architecture, and emitting a target instruction sequence corresponding to the source instruction into the target block of code; emitting a block inconsistency check code into a prefix of the target block of code; and emitting a format update code to update a format register associated register format into a suffix of the target block of code; in such a manner as recited in each of the independent claims 1, 11, 21, 31, 41, and 51.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Ching Chow whose telephone number is 571-272-3693. The examiner can normally be reached on 7:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chih-Ching Chow

Examiner

Art Unit 2191

November 27, 2006

WEI ZHEN
SUPERVISOR, PATENT EXAMINER

CC